REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-14 remain in the application. Claims 11, 13, and 14 have been amended.

More specifically, the claims have been amended to emphasize the fact that the control voltage, which ranges within a voltage range causes the phase shifter to change a phase regulation direction. The phase regulation direction is switched over with hysteresis behavior. The term "phase regulation direction" is of critical importance in this case. While the reference Fischer does indeed deal with phase regulation, the reference does not deal with the changing over or the regulation of a phase regulation direction.

This brings us to the art rejection, in which claim 14 has been rejected as being anticipated by Fischer (US 2002/0067195 A1) under 35 U.S.C. § 102(e).

Fischer's disclosure does not include a teaching to change the phase regulation direction. The variable tap point 25 instead covers only a determined phase range between 0 and 90°. As stated by Fischer,

> [w]ith the tap point 25 set near the grounded end of its sliding range along the variable resistor 30, the hysteresis is brought to near zero and the . . . . the tap point 25 is adjusted to the upper limit of its sliding range, towards the output of the comparator 20, the resulting square waveform signal output 40 approaches 90 degrees out of phase from the waveform signal output 10.

Fischer, para. [0016]. It is impossible in Fischer's circuit for the phase regulation range to be exceeded. It is further impossible to change over the phase regulation direction when the control voltage reaches the lower or upper range limit (ground potential or output voltage OUT 40).

In contrast, the amended claim 14 provides for the phase shifter to change over its phase regulation direction as soon as the control voltage Ucp reaches its lower or upper limit value ("0," "1"). The changing of the phase regulation direction is thereby effected with hysteresis. See, for example, Fig. 7.

The hysteresis behavior referred to in Fischer, relates exclusively to the voltage of the output signal. The object is to reach a constant duty cycle value. Para. [0004]. Fischer does not provide as much as a hint concerning hysteresis behavior with regard to the switching points of a phase regulation direction, because from Fischer we cannot glean even a hint towards switching the phase regulation direction.

Fischer does not anticipate the invention defined in claim 14.

We now turn to the art rejection of claims 11-13 as being unpatentable over Drost et al. in combination with Fischer under 35 U.S.C. § 103. We respectfully traverse.

Claims 11 and 13 have been amended as well by incorporating therein the primary features of claim 14. The combination of Drost and Fischer does not render claims 11 and 13 unpatentable.

Drost discloses a delay locked loop DLL. Such a delay locked loop is described in the introductory text of the instant application and acknowledged as state of the art (e.g. Lee). We cannot glean from the reference Drost any teaching towards a hysteresis with regard to phase regulation. We acknowledge that Drost represents the general state of the art as a background reference. Drost, however, does not as much as point towards the claimed concepts of the instant invention. We take issue with the combination which is quite clearly a hindsight combination of two otherwise quite disparate teachings. There is nothing in either Drost or Fischer which would either explicitly or inherently suggest the combination. Further, absent the teaching found in the instant

specification, there is nothing in the art as a whole which would counsel towards the combination of Drost with Fischer.

Be this as it may, even if the two references were properly combined under 35 U.S.C. § 103, the resulting circuit and the resulting method would in no way render obvious the claimed invention. The combined teachings of the two references do not disclose hysteresis behavior concerning the changeover points of the phase regulation direction.

In summary, none of the references, whether taken alone or in combination, either show or suggest the features of claims 11, 13, and 14. These claims are, therefore, believed to be patentable over the art and since claim 12 depends from claim 11, it is patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-14 are solicited.

Petition for extension is herewith made. The extension fee for response within a period of one month to Section 1.136(a) in the amount of $110.00 in accordance with Section 1.17 is enclosed herewith.

Appl. No. 09/932,251
Amdt. dated June 11, 2004
Reply to Office action of March 1, 2004

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

For Applicant

WERNER H. STEMER
REG. NO. 34,956

WHS:tk

June 11, 2004

Lerner and Greenberg, P.A.
P.O. Box 2480
Hollywood, Florida 33022-2480
Tel.: (954) 925-1100
Fax: (954) 925-1101